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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,835	12/03/2003	Yun Zhang Pei	CN20020010US1	5538
54856	7590	09/17/2007		
LOUIS PAUL HERZBERG 3 CLOVERDALE LANE MONSEY, NY 10952			EXAMINER SALCE, JASON P	
			ART UNIT 2623	PAPER NUMBER
			MAIL DATE 09/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/726,835	PEI ET AL.	
	Examiner	Art Unit	
	Jason P. Salce	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-12 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/04 and 2/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 9/24/2004 and 2/27/2006 was filed after the filing date of the instant application on 13/3/2003. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statement.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8-9 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 20 recites that the client watches channel S11 and its parent channel simultaneously. The examiner notes that in the system disclosed in the instant application, multiple video streams can be received simultaneously until a point is reached. Once the point is reached channel merging occurs in order for a first user to use the same channel as another user, even though the first user started watching a program at a later time than another user. Therefore, in the system disclosed in the

instant application, it is not possible for a user to watch a channel S11 and a parent channel simultaneously.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 10, 12 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zahorjan et al. (U.S. Patent No. 6,859,839) in view of Brooks (U.S. Patent Application No. 2003/0056217).

Referring to claim 1, Zahorjan discloses a channel merging method for a VOD system (see **Column 4, Lines 35-46**).

Zahorjan also discloses that in response to requests from a plurality of clients for a video program (see **Column 6, Lines 59-63 for a first client request for a video program and Column 7, Lines 44 through Column 9, Line 45 for subsequent client requests**), establishing a root channel and at least one sub-channel (see **Figure 8a and Column 7, Lines 7-13 for a root node and subsequent sub-channel nodes, wherein each node requests a request for a video program made at a certain point in time subsequent to the first request, represented by the root node**), said root channel being established according to a request from a client that makes an earliest request (see again **Figure 8a and Column 7, Lines 7-13 for the root node**

being requested by the first client request made at the earliest point in time), each of said sub-channels being established corresponding to request of a client that makes a later request (see Figure 8a and Column 7, Lines 51-52 for the second request being placed in the hierarchy 100 under the root channel, wherein the second request is made at a later time).

Zahorjan also discloses monitoring variation of a number of the client that are using each established channel (**see Column 10, Lines 44-64 for maintaining a list L of every active stream**), but fails to teach maintaining the established channel if the number of clients using a monitored channel is not zero, and closing the established channel if the number of the clients using the monitored channel becomes zero.

Brooks discloses a stream management method that teaches maintaining the established channel if the number of clients using a monitored channel is not zero, and closing the established channel if the number of the clients using the monitored channel becomes zero (**see Figures 4 and 6-7 and Paragraph 0025 and 0028-0030**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the channel merging process, as taught by Zahorjan, using the channel allocation process, as taught by Brooks, for the purpose of providing an efficient utilization of the limited bandwidth of the distribution network (**see Paragraph 0003 of Brooks**).

Referring to claim 2, Zahorjan discloses that said root channel and each of said sub-channels are established in response to a play start request (**see Column 6, Lines 59-63 and Column 7, Lines 44-47**).

Referring to claim 3, Zahorjan discloses that said root channel and said sub-channels form a tree structure (**see Figures 8a-8b**).

Referring to claim 4, Brooks also discloses indicating the number of clients that are using each channel as a count parameter (**see Figure 4**).

Brooks also discloses decreasing the value of said count parameter in response to occurrence of a stopping event of channels and subchannels (**see step 608 in Figure 7**).

Brooks also discloses closing said channel on the server side if the value of said count parameter becomes zero (**see step 616 in Figure 7**).

Referring to claim 5, Brooks discloses that said channel is maintained on the server side if the value of said count parameter is not zero (**see Figure 6**), and said clients having performed the event of stopping no longer receive the programs being played on said channel (**see Figure 7 and note if a channel is no longer being used by a client, then the program is no longer being received**).

Referring to claim 10, Zahorjan discloses that if said client's request at time t is a starting request, a start time parameter is set to be t and an object offset parameter is set to be 0 in the sub-channel (see **Figures 9a-9c**).

Referring to claim 12, Brooks discloses that if said stopping operation is due to the ending of said video program, said sub-channel is directly closed and all resources of said sub-channel are released (see **Figure 7**).

Referring to claim 14, see the rejection of claim 1.

Referring to claims 15-16, see the rejection of claims 2-3.

Referring to claims 17-19, see the rejection of claim 1.

Referring to claim 20, see the rejection of claim 1.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zahorjan et al. (U.S. Patent No. 6,859,839) in view of Brooks (U.S. Patent Application No. 2003/0056217) in view of Cheung et al. (U.S. Patent No. 2002/0114330).

Referring to claim 11, Zahorjan and Brooks disclose all of the limitations in claim 2, but fails to teach that if said client's request at time t is a jumping request, and the object offset time of said jumping is s , a start time parameter is set to be t and an object offset parameter is set to be s in the sub-channel.

Cheung discloses that client's request at time t is a jumping request, and the object offset time of said jumping is s , a start time parameter is set to be t and an object offset parameter is set to be s in the sub-channel (**see Paragraphs 0097-0102**).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the channel merging/channel allocation process, as taught by Zahorjan and Brooks, using the interactive stream management process, as taught by Cheung, for the purpose of providing both scalability and full interactivity by allowing a user to navigate through a video stream at his/her leisure (**see Abstract and Paragraph 0097 of Cheung**).

Allowable Subject Matter

Claims 6-7 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

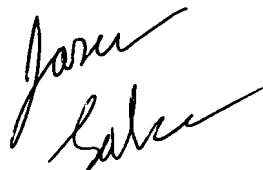
Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason P Salce
Primary Examiner
Art Unit 2623

September 12, 2007

JASON SALCE
PRIMARY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Jason Salce", written over the printed name and title.